

503791

JUN 18 1996

Ms. Carolyn Bussey  
Ciba-Geigy Corporation  
Ciba Crop Protection  
P.O. Box 18300  
Greensboro, NC 27419

Dear Ms. Bussey:

Subject: Amendment - Add Apples and Pears  
D.z.n diazinon Lawn & Garden WBC  
EPA Registration Number 100-770  
Your submission dated February 29, 1996

The amendment referred to above, submitted in connection with registration under FIFRA section 3(c)(7)(a), is acceptable provided that you:

1. Submit and/or cite all data or other material required for registration/reregistration of your product under FIFRA section 3(c)(5) or FIFRA section 4 when the Agency requires all registrants of similar products to submit such data.
2. Make the labeling changes listed below before you release the product for shipment bearing the amended labeling
  - a) On both the container label and the booklet label, in the Environmental Hazards, revise "where irrigation (watering) is recommended" to just "where watering is recommended", since the term "irrigation" does not appear in the Directions For Use.
  - b) On the container label, in the summary table of Problem Areas and Pests, add "(CA only)" after "Almonds" and revise "(CA only - both crops)" to just "(CA only)" after Walnuts. Since Almonds and Walnuts are presented as separate entries, it is not appropriate to say "both crops" for the single entry Walnuts, which only produces a single crop per year.

- c) On both the container label and the booklet label, in the Storage directions, you may wish to revise "If product freezes, place container in a warm room (68°F or above) and allow to thaw." to "If product freezes, place container in a warm area (68°F or above) inaccessible to children or pets and allow to thaw."
- d) In the booklet label, in item 5 of the Precautions under the heading Lawn Pest Control, revise "Where irrigation (watering) is recommended" to just "Where watering is recommended", since the term "irrigation" does not appear in the Directions For Use.
- e) In the tables of specific directions for use for both Fruits and Nuts and Vegetables, for consistency with the rest of the label revise the column heading "Pest" to "Pests". For other use sites, the column headings are plural, eg. "Insects" or "Pests".
- f) In the Timing/Special Directions for the crops Apples, Apricots, Caneberries, Cherries, Grapes, Nectarines, Peaches, Pears, Plums & Prunes, and Strawberries add a comma between "applications per seasons" and "a minimum of". For the crop Walnuts, revise the current third sentence to be consistent with the rest of the crop entries, i.e., to read "Do not make more than 3 applications per season, a minimum of 14 days apart."
- g) In accordance with the recent CBRS decision regarding Diazinon and Blueberries, you may increase the maximum number of applications per season to 5. It should be understood that the continued use at this number of applications (5) is contingent upon the acceptability of the IR-4 reregistration data for this crop. For consistency with the rest of the Fruits and Nuts directions, the revised Timing/Special Directions for the crop Blueberries should appear as follows:  
  
Apply as a full cover spray. Do not apply more than 4 gals. per 500 sq. ft. of blueberry patch. Do not make more than 5 applications per season, a minimum of 14 days apart. Do not apply within 7 days of harvest.
- h) The Agency assumes that the first entry for pears is really a single entry for Aphids through Tentiform Leafminers and that the Note appears after "within 12 days of harvest.", i.e., that there is no horizontal line separating some of the pests and the Note from the rest of the entry.

- i) In the Timing/Special Directions for each vegetable crop that contains directions for foliar application, i.e., that has the pest grouping including Aphids (as well as Onion Thrips for the crop Onions), add a comma in the second sentence between "days" and "up to". Crops affected by this revision include Beans, Broccoli, Cabbage, Carrots, Cauliflower, Chinese Broccoli, Chinese Cabbage, Collards, Cucumbers, Endive, Kale, Lettuce, Melons, Onions, Parsnips, Peas, Peppers, Potatoes, Radishes, Rutabagas, Spinach, Summer Squash, Winter Squash, Sweet Corn, Tomatoes, and Turnips.
- 3) Submit three (3) copies of your final printed labeling before you release the product for shipment.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records. Also enclosed is a copy of the Agency's review concurring with your request to allow bridging of residue data from D.z.n diazinon 50W for apples and pears to support those crop uses on this 24% WBC product and, furthermore, that data generated for the 50W formulation may be used to support future registrations for use of the 25% EC, 48% EC, and the 56% WBC on apples and pears provided that the use patterns are consistent with, and the restrictions are no more liberal than that currently registered on the 50 WP Section 3 label. The Agency understands that you may elect to add these uses to the water-based products only, since you have indicated that there may be a potential phytotoxicity problem with diazinon emulsifiable concentrates and certain varieties of these two crops.

Sincerely,

George T. LaRocca  
 Product Manager 13  
 Insecticide/Rodenticide Branch  
 Registration Division (7505C)

4/45

Draft - Addition of Apples & Pears  
Container Label

D.z.n@ diazinon

Lawn & Garden WBC  
Water-Based Concentrate

This product must not be used on golf courses and sod farms.

For outdoor use on the home lawn and the home garden only.

Spray concentrate. Contains diazinon insecticide.

**Protects**

Lawns  
Vegetables  
Fruits and Nuts  
Roses  
Flowers  
Trees  
Shrubs

**Controls**

Ants, Aphids  
Chinch Bugs  
Cutworms  
Fire Ants<sup>1</sup>  
Flea Beetles  
Grubs, Mites  
Sod Webworms  
and many others

ACCEPTED  
with COMMENTS  
in EPA Letter Dated

JUN 18 1996

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act  
as amended, for the pesticide  
registered under EPA Reg. No.

100-770

<sup>1</sup>Aids in control.

See full label in booklet under cap for  
complete directions for mixing and  
applying this product and a complete list  
of pests controlled.

Active Ingredient:

Diazinon: O,O-Diethyl O-(2-isopropyl- 6-methyl-4-pyrimidinyl) phosphorothioate .....	22.4%
Inert Ingredients:	77.6%
<hr/> Total:	<hr/> 100.0%

EPA Reg. No. 100-770

KEEP OUT OF REACH OF CHILDREN.

CAUTION

See side panel for additional precautionary statements:

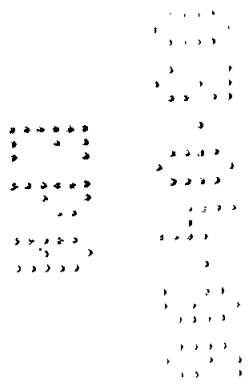
One Pint or One Quart  
Net Contents

5/45

(Front Panel Bullet Statements)

- Concentrated
- Broad Spectrum Pest Control
- Less Smell
- Low Odor
- Reduced Odor Formulation
- Easy-to-Mix
- Easy-to-Apply
- Handles Easily
- Dilute and Spray
- Excellent Performance
- Controls soil, foliar, and sucking pests
- Convenient water-based formula
- Concentrated = Better Value
- Protects Home Lawns and Home Vegetable Gardens
- Controls pests in the home lawn and home garden
- Controls a wide spectrum of pests
- Soil and Foliar Insecticide with Broad Spectrum Control
- Spray on foliage or soil to control numerous pests
- Reliable control
- Covers up to \_\_\_\_\_ sq. ft. of lawn
- Fast acting
- Dependable Control
- Time Tested Insecticide
- Economical
- New Water-Based Formula\*
- Use on home lawns, ornamentals, vegetables and fruits

\*The term "new" may be used for no longer than 6 months following product introduction into the marketplace.



6/45

## Precautionary Statements

### Hazards to Humans and Domestic Animals

#### CAUTION

Harmful if swallowed, inhaled, or absorbed through skin. Avoid contact with eyes, skin, or clothing. Avoid breathing spray mist. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse. Do not use inside the home. Avoid contamination of feed and foodstuffs. Do not use on household pets or humans. Do not allow children or pets to go onto a treated area until the treated area, such as grass or soil, has dried. Do not contaminate ornamental fish ponds. Food utensils, such as spoons and measuring cups, must not be used for food purposes after use in measuring pesticides.

#### Statement of Practical Treatment

**If swallowed:** Call a physician or Poison Control Center immediately. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth if person is unconscious or convulsing.

**If in eyes:** Flush eyes with plenty of water. Call a physician if irritation persists.

**If inhaled:** Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

**If on skin:** Wash with plenty of soap and water. Get medical attention.

**Note to Physician:** This product is an organophosphate insecticide. If symptoms of cholinesterase inhibition are present, atropine sulfate by injection is antidotal. 2-PAM is also antidotal and may be administered, but only in conjunction with atropine. If ingested, induce emesis or lavage stomach.

#### Environmental Hazards

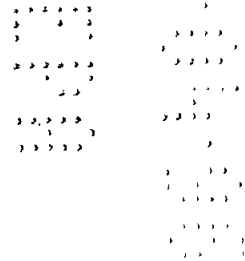
This product is highly toxic to birds, fish, and other wildlife. Birds, especially waterfowl, feeding or drinking on treated areas may be killed. Because of the migratory habits of certain Atlantic Coast waterfowl, do not apply this product to lawns in Nassau County, New York, between November 1 and May 20; Do not exceed maximum permitted label rates. Application rates above those recommended significantly increase potential hazards to birds and waterfowl. Avoid overlapping of sprays. For lawns, where irrigation (watering) is recommended in the directions, or if waterfowl (ducks or geese) can be expected in the treated area after treatment (except spot treatment), water lawn with at least



After spraying, wait the following number of days before harvesting fruits, nuts, or vegetables:

- 1 day - Tomatoes
- 3 days - Melons, Winter Squash
- 5 days - Peppers, Strawberries
- 7 days - Beans, Blackberries, Blueberries, Boysenberries, Broccoli, Cauliflower, Cucumbers, Dewberries, Loganberries, Peas, Raspberries, Summer Squash, Sweet Corn
- 10 days - Chinese Broccoli, Chinese Cabbage, Collards, Kale
- 14 days - Carrots, Endive (Escarole), Lettuce, Onions (Bulb and Green), Parsnips, Radishes, Rutabagas, Spinach, Turnips
- 21 days - Apples, Apricots, Cabbage, Cherries, Nectarines, Peaches, Pears, Plums, Prunes
- 28 days - Grapes
- 35 days - Potatoes (Irish)
- 45 days - Walnuts
- \* - Almonds (one dormant spray only)

Precautions: (1) Wear a long-sleeved shirt and long-legged pants when spraying. (2) Spray with the wind to your back. (3) Do not spray on windy days. (4) If clothing becomes wet from spray during use, remove clothing after spraying, wash affected body areas thoroughly with soap and water, and launder clothing before wearing again.





9/45

\*This table is only a partial listing of the pests controlled by this product. See booklet under cap for complete directions for use and pests controlled.

Problem Area	Pests*
Nuisance Pests in Outside Areas	Ants, Brown Dog Ticks, Chiggers, Cockroaches, Crickets, Fleas, Fire Ants, Spiders, and others*
Lawns	Chinch Bugs, Ants, Sod Webworms, Brown Dog Ticks, Fleas, White Grubs, Lawn Billbugs, and others*
<b>Vegetables: Foliar Application</b>	
Beans, Peas (except dried varieties)	Aphids, Cucumber Beetles, Grasshoppers, Leafhoppers, Mexican Bean Beetles, Spider Mites
Broccoli, Chinese Broccoli, Cabbage, Chinese Cabbage, Cauliflower, Collards, Kale	Aphids, Flea Beetles, Dipterous Leafminers, Diamondback Moths, Imported Cabbageworms
Endive (Escarole), Lettuce, Spinach	Aphids, Flea Beetles, Leafhoppers, Dipterous Leafminers, Spider Mites
Peppers, Tomatoes	Aphids, Colorado Potato Beetles, Fall Armyworms (Tomatoes), Flea Beetles, Leafhoppers, Southern Armyworms (Tomatoes), Vinegar Flies - <i>Drosophila</i> spp. (Tomatoes)
Onions (Bulb and Green)	Onion Thrips
Carrots, Parsnips, Potatoes, Radishes, Rutabagas, Turnips	Aphids, Flea Beetles, Leafhoppers, Dipterous Leafminers, Colorado Potato Beetles (Potatoes), Southern Armyworms (Potatoes)
Sweet Corn	Aphids, Flea Beetles, Grasshoppers, Spider Mites
Melons, Squash (Summer, Winter)	Aphids, Thrips, Spider Mites

Vegetables: Preplant Soil Application

Beans, Peas (except dried varieties) Cutworms, Mole Crickets, Wireworms (Snap Beans)

Beets, Red (Table) Cutworms, Mole Crickets

Cabbage Cutworms, Root Maggots, Wireworms

Carrots, Sweet Corn Cutworms, Mole Crickets, Wireworms

Lettuce, Tomatoes Cutworms, Wireworms

Radishes, Rutabagas, Turnips Cutworms

Handwritten notes or markings in the bottom right corner, including several rows of small, illegible characters and symbols.











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**DIRECTIONS FOR USE**

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It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

**FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN POOR INSECT CONTROL, CROP INJURY, OR ILLEGAL RESIDUES**

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**General Information**

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D·z·n diazinon Lawn & Garden WBC is a water-based concentrate product which must be diluted with water before application. To avoid having spray mixture left over, mix only the amount needed. Refer to the section "How to Mix and Apply." This product kills many outdoor insects which damage lawns, roses, flowers, trees, shrubs, vegetables, fruits and nuts, and insects which annoy pets and people. Contains diazinon insecticide which provides positive control of many "hard-to-kill" sucking and chewing insects. D·z·n diazinon Lawn & Garden WBC works fast and application should be repeated only as directed to maintain control.

**Notes:** (1) Do not use inside the home. (2) Do not use on ferns, poinsettia, hibiscus, papaya, pilea, gardenia or orchids since injury may occur. (3) Use this product on succulent peas and beans only. Do not use on dried pea or bean varieties. (4) Do not apply to food crops grown in greenhouses.

Precautions: (1) Wear a long-sleeved shirt and long-legged pants when spraying. (2) Spray with the wind to your back. (3) Do not spray on windy days. (4) If clothing becomes wet from spray during use, remove clothing after spraying, wash affected body areas thoroughly with soap and water, and launder clothing before wearing again.

**How to Mix and Apply:**

**Step #1: Determine size of spraying job.** For lawns and vegetables, measure the area to be sprayed. For all other applications, apply as a thorough cover spray. Make applications when insects first appear. Application should be repeated only as directed to maintain control.

**Step #2: Use clean sprayer.** Carefully measure and mix the amount of D·z·n diazinon Lawn and Garden WBC and water as indicated in the rate chart.

**Step #3: Spray as directed in rate chart.** Thorough coverage is important.

**See chart for complete list of use sites, crops, and insects controlled.** Use the rate given in the chart for the type of insect you want to control on the site or crop you are spraying.

**Step #4: Flush sprayer with clean water after each use.**





18/45

Pests	Rate		Remarks
	D·z·n	Water	
Lawn Chinch Bugs	1 1/2 table- spoons per 125 sq. ft. or 6 fl. oz. per 1,000 sq. ft.	3 gals.  24 gals.	Thoroughly wet down grass a few hours before applying.  In the North, if Chinch Bugs are the only problem, a lower rate of application can be used: 3 teaspoons in 3 gals. of water covers 125 sq. ft. or 4 fl. oz. in 24 gals. of water per 1,000 sq. ft.

19/45

Pests	Rate		Remarks
	D·z·n	Water	
Ants, Army-worms, Bermuda-grass Mites, Clover Mites, Springtails (Collembola), Crickets, Cut-worms, Digger Wasps, Earwigs, Frit Flies, Lawn Billbugs, Leafhoppers, Sqd Webworms (Lawn Moths), Sowbugs (Pillbugs)	1 1/2 table-spoons per 125 sq. ft. or 6 fl. oz. per 1,000 sq. ft.	3 gals.  24 gals.	Thoroughly wet down grass a few hours before applying.  For ants and digger wasps, spot spray ant hills and wasp ground nest openings. For digger wasps, apply at dusk, when wasps are not active.  Billbug control: Apply when activity is first observed or when chewed or brown grass is present indicating damage from the insect.  For frit flies, mow grass and water thoroughly before treatment, but delay application until grass is dry.
Brown Dog Ticks, Chiggers, Fleas	1 1/2 table-spoons per 125 sq. ft. or 6 fl. oz. per 1,000 sq. ft.	3 gals.  24 gals.	<b>Note:</b> Do not apply this product to animals.  For brown dog ticks, spray grass and under shrubbery, particularly near house.

Pests	Rate		Remarks
	D·z·n	Water	
Hyperodes Weevil	1 1/2 table- spoons per 125 sq. ft. or 6 fl. oz. per 1,000 sq. ft.	3 gals.  24 gals.	Treat problem areas in mid-April and again in mid-May. Water grass thoroughly after application.
Millipedes	1 1/2 table- spoons per 125 sq. ft. or 6 fl. oz. per 1,000 sq. ft.	3 gals.  24 gals.	Thoroughly wet grass a few hours before applying.
Rhodesgrass Scales	1 1/2 table- spoons per 125 sq. ft. or 6 fl. oz. per 1,000 sq. ft.	3 gals.  24 gals.	Apply when crawlers first emerge.
White Grubs of Japanese Beetle, European Chafer, Southern Chafer	1 1/2 table- spoons per 125 sq. ft. or 6 fl. oz. per 1,000 sq. ft.	3 gals.  24 gals.	Apply any time between late July and early October. Water grass thoroughly after application.

**Nuisance Pests Outside the Home**

Ants, Boxelder Bugs, Brown Dog Ticks, Chiggers, Clover Mites, Cockroaches, Crickets, Earwigs, Fleas, Flies, Millipedes, Sowbugs (Pillbugs), Spiders, Springtails (Collembola)

Mix 2 fl. oz. in 1 gal. of water and thoroughly spray window and door screens, sills, foundations, porch and patio walls, entranceways, walks, garbage cans, tree trunks, and into cracks and other places where insects can hide.

To prevent entry into houses, spray a five-foot band of soil around the house next to the foundation and spray the foundation of the house to a height of 2-3 feet. Repeat application as necessary.

**Do not treat animals with this product. Do not treat plants (other than tree trunks) at this nuisance pest rate.**

**Fire Ants**

To aid in the control of fire ants in home lawns and other outdoor home recreation areas, apply 2 tablespoons in a minimum of 1 gal. of water as a drench. Apply over and 6 inches around each mound. Apply gently to avoid disturbing ants. Reapply as necessary. Larger quantities of solution can be prepared for multiple mound treatments. Use equipment capable of delivering the diluted product as a gentle rain at the rate of 1 gal. per mound. High pressure sprays may disturb the ants and cause migration, reducing product effectiveness.

**Note:** For best results, apply in cool weather 65-80°F, or in early morning or late evening hours. Treat new mounds, as they appear.

**Insect Control on Ornamental Trees, Shrubs and Flowers**

Spray when listed pests first appear. Repeat as necessary.

Trees and Shrubs	Insects	Rate per 1 Gal. of water	Timing/Special Directions
Arborvitae, Azalea, Birch, Boxwood, Camellia, Crab Apple, Dogwood, Douglas Fir, Elm, Euonymus, Hawthorn, Holly, Honey Locust, Honey- suckle, Juniper, Lilac, Locust, Maple, Mimosa, Oak, Pine, Ornamental Plum, Poplar, Rhododendron, Scotch Pine, Spirea, Spruce, Sycamore, Wax Plant (Hoya), Willow, Yellow- wood, Yew	Aphids, Apple and Thorn Skeletonizers, Bagworms, European Pine Sawfly, European Pine Shoot Moths, Holly Bud Moths, Dipterous Leaf- miners (Arborvitae, Azalea, Birch, Boxwood, Holly Oak), Hemlock Chermes, Leaf- hoppers, Mealy- bugs, Mites (Clover, Cycla- men, European Red, Privet, Two-spotted Spider), Oak Loopers, Obliquebanded Leafrollers, Obscure Root Weevils, Omnivorous Leaf-tiers, Pear Slugs, Scale Crawlers (Cottony- cushion, Euonymus, Lecanium, Pine Needle, Pit, San Jose, Soft), Tent Caterpillars, Webworms (Cotoneaster, Fall, Juniper, Mimosa), Whiteflies	2 teaspoons	Apply as a thorough foliar spray. Wet leaves and branches to the dripping point. Try to pene- trate dense foliage with spray.  Mimosa Webworms: apply when adults first appear. Make two additional applications at 4-5 week intervals.

Insect Control on Ornamental Trees, Shrubs and Flowers (Cont'd)

Roses and Flowers	Insects	Rate per 1 gal. of water	Timing/Special Directions
Azaleas, Camellias, Chrysanthemums, Carnations, Gladioli, Lilac, Lilies, Marigolds, Pansies, Petunias, Rhododendron, Roses	Aphids, Dipterous Leafminers, Euonymus Scale Crawlers, Flea Beetles, Leafhoppers, Mealybugs, Mites (Carnation Bud, Carnation Shoot, Cyclamen, European Red, Two-spotted Spider), Thrips, Whiteflies	2 teaspoons	Apply as a thorough foliar spray. Try to spray underside of leaves and penetrate dense foliage.





25/45

Crop	Pest	Rate	Timing/Special Directions
Almonds (CA only)	San Jose Scale, Parlatoria Scale	2 teaspoons in 1 gal. of water	Apply only as a dormant spray. Do not apply more than 6 gals. per 500 sq. ft. of home orchard.  This product may be used on almonds only in CA. Do not use this product on almonds grown in other states.
Apples	Aphids, Apple maggots, Codling moths, Eyespotted budmoths, Fruit Tree Leafrollers, Leafhoppers, Mealybugs, Scale crawlers (San Jose Forbes) Spider Mites	2 teaspoons in 1 gal. of water	Apply as a full cover spray. Do not apply more than <u>4</u> gals. per 500 sq. ft. of home orchard. Do not make more than 3 applications per season a minimum of 14 days apart. Do not apply within 21 days of harvest.  <b>Note:</b> Resistant apple maggots may not be controlled by diazinon or similar type insecticides.
Apricots	Aphids, Apricot Mealybugs, Mites (Brown, Two-spotted Spider), Scale Crawlers (Olive, San Jose)	2 teaspoons in 1 gal. of water	Apply as a full cover spray. Do not apply more than 4 gals. per 500 sq. ft. of home orchard. Do not make more than 3 applications per season a minimum of 14 days apart. Do not apply within 21 days of harvest.

Crop	Pest	Rate	Timing/Special Directions
Blueberries	Aphids, Blueberry maggots, Cherry fruitworms, Cranberry fruitworms, Thrips, Two-spotted spider mites	2 teaspoons in 1 gal. of water	Apply as a full cover spray. Allow a minimum of 14 days between applications. Do not apply more than 4 gals. per 500 sq. ft. of blueberry patch. Do not make more than 2 applications per season.  Allow a minimum of 7 days between the last application and harvest.
Caneberries (CA, OR, WA only): Blackberries, Boysenberries, Dewberries, Loganberries, Raspberries	Aphids, Leafhoppers, Raspberry Fruitworms, Two-spotted Spider Mites, Thrips	2 teaspoons in 1 gal. of water	Apply as a full cover spray. Do not apply more than 5 gals. per 500 sq. ft. of caneberry patch. Do not make more than 5 applications per season a minimum of 14 days apart. Do not apply within 7 days of harvest.  This product may be used on caneberries only in CA, OR and WA. Do not use this product on caneberries grown in other states.
Cherries	Black Cherry Aphids, Cherry Fruitflies, Cherry Fruitworms (Maggots), Fruittree Leafrollers, Mites (Cherry Rust), Scale Crawlers (San Jose)	2 teaspoons in 1 gal. of water	Apply as a full cover spray. Do not apply more than 4 gals. per 500 sq. ft. of home orchard. Do not make more than 5 applications per season a minimum of 7 days apart. Do not apply within 21 days of harvest.

27/45

Crop	Pest	Rate	Timing/Special Directions
Grapes	Aphids, Leafhoppers, Grape Berry Moths, Grape Leaffolders	1 1/2 teaspoons in 1 gal. of water	Apply as a full cover spray. Do not apply more than 3 gals. per 500 sq. ft. of home vineyard. Do not make more than 5 applications per season a minimum of 7 days apart. Do not apply within 28 days of harvest.
Nectarines	Aphids, Mites (Brown, Two-spotted Spider), Scale Crawlers (Olive, San Jose)	2 teaspoons in 1 gal. of water	Apply as a full cover spray. Do not apply more than 4 gals. per 500 sq. ft. of home orchard. Do not make more than 3 applications per season a minimum of 14 days apart. Do not apply within 21 days of harvest.
Peaches	Aphids, Mites (Brown, Two-spotted Spider), Scale Crawlers (Olive, San Jose)	2 teaspoons in 1 gal. of water.	Apply as a full cover spray. Do not apply more than 4 gals. per 500 sq. ft. of home orchard. Do not make more than 3 applications per season a minimum of 14 days apart. Do not apply within 21 days of harvest.
Pears	Aphids, Apple maggots, Codling moths	2 teaspoons in 1 gal. of water	Apply as a full cover spray. Do not apply more than 4 gals. per 500 sq. ft. of home orchard. Do not make more than 3 applications per season a minimum of 14 days apart. Do not apply within 21 days of harvest.

28/45

Crop	Pest	Rate	Timing/Special Directions
Pears (Cont'd)	Mealybugs, Scale crawlers, San Jose Forbes), Spider Mites, Tentiform leafminers		<b>Note:</b> Resistant apple maggots will not be controlled by diazinon or similar type insecticides.
	Pear Psylla	1-2 teaspoons in 1 gal. of water	Apply as a full cover spray. Do not apply more than 4 gals. per 500 sq. ft. of home orchard. Do not make more than 3 applications per season a minimum of 14 days apart. Do not apply within 21 days of harvest.
Plums and Prunes	Aphids (Leafcurl Plum, Mealy Plum, Thistle), Mites (Brown, European Red)	2 teaspoons in 1 gal. of water	Apply as a full cover spray. Do not apply more than 4 gals. per 500 sq. ft. of home orchard. Do not make more than 3 applications per season a minimum of 7 days apart. Do not apply within 21 days of harvest.
Strawberries	Aphids, Two- spotted Spider Mites, Strawberry Leafrollers	2 teaspoons in 1 gal. of water	Apply as a full cover spray. Do not apply more than 3 gals. per 500 sq. ft. of strawberry patch. Do not make more than 3 applica- tions per season a minimum of 7 days apart. Do not apply within 5 days of harvest.

29/45

Crop	Pest	Rate	Timing/Special Directions
Walnuts (CA only)	Aphids, Scale Crawlers (Walnut, Italian Pear, Frosted), Spider Mites, Twig Borers	2 teaspoons in 1 gal. of water.	<p>Apply as a full cover spray. Do not apply more than 6 gals. per 500 sq. ft. of home orchard. Do not make more than 3 applications per season 14 days apart. Do not apply after husks open or split. Do not apply within 45 days of harvest.</p> <p>This product may be used on walnuts only in CA. Do not use this product on walnuts grown in other states.</p>

**Vegetables**

For foliar or soil applications, D-z-n Lawn and Garden Insect Control should be applied in the volume of water recommended in the table below to assure thorough coverage of the foliage or soil.

Observe stated time intervals between last application and harvest as well as intervals between applications and maximum numbers of applications per season.. Do not apply to food crops grown in greenhouses.

**Pre-Harvest Intervals (PHI\*)  
for Foliar Applications**

<b>Crop</b>	<b>PHI* (Days)</b>
Beans <sup>1</sup> (succulent varieties only: Lima, Pole & Snap)	7
Broccoli	7
Cabbage	21
Cantaloupes	3
Carrots	14
Casabas	3
Cauliflower	7
Chinese Broccoli	10
Chinese Cabbage	10
Collards	10
Crenshaws	3
Cucumbers	7
Endive (Escarole)	14
Honeydew Melons	3
Kale	10
Lettuce	14
Muskmelons	3
Onions (Bulb and Green)	14
Parsnips	14
Peas <sup>1</sup>	7
Peppers	5
Persian melons	3
Potatoes (Irish)	35
Radishes	14
Rutabagas	14
Spinach	14
Squash, Summer	7
Squash, Winter	3
Sweet Corn	7
Tomatoes	1
Turnips (Roots & Tops)	14
Watermelons	3

\*PHI = Pre-Harvest Interval, or the number of days between the last application and harvest.

<sup>1</sup>Do not use this product on dried pea or bean varieties such as pinto beans, dried limas, split peas, or dried black-eyed peas.

**Vegetables**

For application to the foliage, thoroughly spray all plant parts. Application to the soil should be mixed into the soil immediately after application.

Crop	Pest	Rate	Timing/Special Directions
Beans, Lima Pole and Snap (succulent varieties only)	Aphids, Cucumber beetles, Grasshoppers, Leafhoppers, Mexican Bean Beetles, Spider Mites	1 teaspoon in 1 gal. of water to cover 500 sq. ft. of garden	Thoroughly spray all plant parts. Repeat application every 5 days up to 3 applications per season. Do not apply within 7 days of harvest.
	Cutworms (surface, subterranean)	6 table-spoons per 500 sq. ft. in a minimum of 1 gal. of water.	Spray the soil evenly just before planting. Immediately work into soil 2-3 inches for surface cutworms, 3-6 inches for subterranean cutworms.
	Mole-Crickets	2 table-spoons per 500 sq. ft. in a minimum of 1 gal. of water.	Spray the soil evenly 1-2 days before planting. Immediately work into soil 1-2 inches.
	Wireworms (snap beans only)	6 table-spoons per 500 sq. ft. in a minimum of 1 gal. of water	Spray the soil evenly just before planting. Immediately work into soil 4-8 inches.

**Note:** (1) Do not apply this product to dried bean varieties such as pinto beans or dried limas. (2) To protect bees, do not apply bean foliage treatments if the beans or weeds in the treatment area are in bloom.

32/45

Crop	Pest	Rate	Timing/Special Directions
Beets, Red (Table)	Cutworms (surface, subterranean)	6 table-spoons per 500 sq. ft. in a minimum of 1 gal. of water	Spray the soil evenly just before planting. Immediately work into soil 2-3 inches for surface cutworms, 3-6 inches for subterranean cutworms.
	Mole Crickets	2 table-spoons per 500 sq. ft. in a minimum of 1 gal. of water	Spray the soil evenly 1-2 days before planting. Immediately work into soil 1-2 inches.
Broccoli	Aphids, Diamondback Moths, Flea Beetles, Imported Cabbageworms, Dipterous Leafminers	1 teaspoon in 1 gal. of water to cover 500 sq. ft. of garden	Thoroughly spray all plant parts. Repeat application every 7 days up to 5 applications per season. Do not apply within 7 days of harvest.  <b>Note:</b> Resistant leafminers will not be controlled by diazinon or similar type insecticides.
Cabbage	Aphids, Diamondback Moths, Flea Beetles, Imported Cabbageworms, Dipterous Leafminers	1 teaspoon in 1 gal. of water to cover 500 sq. ft. of garden	Thoroughly spray all plant parts. Repeat application every 7 days up to 5 applications per season. Do not apply within 21 days of harvest.  <b>Note:</b> Resistant leafminers will not be controlled by diazinon or similar type insecticides.
	Cutworms (surface, subterranean)	6 table-spoons per 500 sq. ft. in a minimum of 1 gal. of water	Spray the soil evenly just before planting. Immediately work into soil 2-3 inches for surface cutworms, 3-6 inches for subterranean cutworms.



Crop	Pest	Rate	Timing/Special Directions
Cabbage (Continued)	Root Maggots	6 table- spoons per 500 sq. ft. in a minimum of 1 gal. of water	Spray the soil evenly just before planting. Immedi- ately work into soil 2-3 inches.
	Wireworms	6 table- spoons per 500 sq. ft. in a minimum of 1 gal. of water	Spray the soil evenly just before planting. Immedi- ately work into soil 4-8 inches.
Carrots	Aphids, Flea Beetles, Leafhoppers, Dipterous Leafminers, Spider Mites	1 teaspoon in 1 gal. of water to cover 500 sq. ft. of garden	Thoroughly spray all plant parts. Repeat application every 7 days up to 5 appli- cations per season. Do not apply within 14 days of harvest.  <b>Note:</b> Resistant leafminers will not be controlled by diazinon or similar type insecticides.
	Cutworms (surface, subterranean)	6 table- spoons per 500 sq. ft. in a minimum of 1 gal. of water	Spray the soil evenly just before planting. Immedi- ately work into soil 2-3 inches for sur- face cutworms, 3-6 inches for subterra- nean cutworms.
	Mole Crickets	2 table- spoons per 500 sq. ft. in a minimum of 1 gal. of water	Spray the soil evenly 1-2 days be- fore planting. Immediately work into soil 1-2 inches.

39/45

Crop	Pest	Rate	Timing/Special Directions
Carrots (Continued)	Wireworms	6 table- spoons per 500 sq. ft. in a minimum of 1 gal. of water	Spray the soil evenly just before planting. Immedi- ately work into soil 4-8 inches.
Cauliflower	Aphids, Diamondback Moths, Flea Beetles, Imported Cabbageworms, Dipterous Leafminers	1 teaspoon in 1 gal. of water to cover 500 sq. ft. of garden	Thoroughly spray all plant parts. Repeat application every 7 days up to 5 appli- cations per season. Do not apply within 7 days of harvest.  <b>Note:</b> Resistant leafminers will not be controlled by diazinon or similar type insecticides.
Chinese Broccoli	Aphids, Diamondback Moths, Flea Beetles, Imported Cabbageworms, Dipterous Leafminers	1 teaspoon in 1 gal. of water to cover 500 sq. ft. of garden	Thoroughly spray all plant parts. Repeat application every 7 days up to 5 appli- cations per season. Do not apply within 10 days of harvest.  <b>Note:</b> Resistant leafminers will not be controlled by diazinon or similar type insecticides.
Chinese Cabbage (Bok Choy and Napa)	Aphids, Diamondback Moths, Flea Beetles, Imported Cabbageworms, Dipterous Leafminers	1 teaspoon in 1 gal. of water to cover 500 sq. ft. of garden	Thoroughly spray all plant parts. Repeat application every 7 days up to 5 appli- cations per season. Do not apply within 10 days of harvest.  <b>Note:</b> Resistant leafminers will not be controlled by diazinon or similar type insecticides.

Crop	Pest	Rate	Timing/Special Directions
Collards	Aphids, Diamondback Moths, Flea Beetles, Imported Cabbageworms, Dipterous Leaf- miners	1 teaspoon in 1 gal. of water to cover 500 sq. ft. of garden	Thoroughly spray all plant parts. Repeat application every 7 days up to 5 appli- cations per season. Do not apply within 10 days of harvest.  <b>Note:</b> Resistant leafminers will not be controlled by diazinon or similar type insecticides.
Corn (see sweet corn)			
Cucumbers	Aphids, Thrips, Spider Mites	1 teaspoon in 1 gal. of water to cover 500 sq. ft. of garden	Thoroughly spray all plant parts. Repeat application every 7 days up to 5 appli- cations per season. Do not apply within 7 days of harvest.
Endive (Escarole)	Aphids, Flea Beetles, Leafhoppers, Dipterous Leafminers, Spider Mites	1 teaspoon in 1 gal. of water to cover 500 sq. ft. of garden	Thoroughly spray all plant parts. Repeat application every 7 days up to 5 appli- cations per season. Do not apply within 14 days of harvest.  <b>Note:</b> Resistant leafminers will not be controlled by diazinon or similar type insecticides.
Kale	Aphids, Diamondback Moths, Flea Beetles, Imported Cabbageworms, Dipterous Leafminers	1 teaspoon in 1 gal. of water to cover 500 sq. ft. of garden	Thoroughly spray all plant parts. Repeat application every 7 days up to 5 appli- cations per season. Do not apply within 10 days of harvest.  <b>Note:</b> Resistant leafminers will not be controlled by diazinon or similar type insecticides.

36/45

Crop	Pest	Rate	Timing/Special Directions
Lettuce	Aphids, Flea Beetles, Leafhoppers, Dipterous Leafminers, Spider Mites	1 teaspoon in 1 gal. of water to cover 500 sq. ft. of garden	Thoroughly spray all plant parts. Repeat application every 7 days up to 5 applications per season. Do not apply within 14 days of harvest.  <b>Note:</b> Resistant leafminers will not be controlled by diazinon or similar type insecticides.
	Cutworms (surface, subterranean)	6 table-spoons per 500 sq. ft. in a minimum of 1 gal. of water	Spray the soil evenly just before planting. Immediately work into soil 2-3 inches for surface cutworms, 3-6 inches for subterranean cutworms.
	Wireworms	6 table-spoons per 500 sq. ft. in a minimum of 1 gal. of water	Spray the soil evenly just before planting. Immediately work into soil 4-8 inches.
Melons (Cantaloupes, Casabas, Crenshaws, Honeydews, Muskmelons, Persians, and Hybrids of these) and Watermelons	Aphids, Thrips, Spider Mites	1 teaspoon in 1 gal. of water to cover 500 sq. ft. of garden	Thoroughly spray all plant parts. Repeat application every 7 days up to 5 applications per season. Do not apply within 3 days of harvest.

Crop	Pest	Rate	Timing/Special Directions
Onions (Bulb and Green)	Onion Thrips	1 teaspoon in 1 gal. of water to cover 500 sq. ft. of garden	Thoroughly spray all plant parts. Repeat application every 7 days up to 5 applications per season. Do not apply within 14 days of harvest.
Parsnips	Aphids, Flea Beetles, Leafhoppers, Dipterous Leafminers, Spider Mites	1 teaspoon in 1 gal. of water to cover 500 sq. ft. of garden	Thoroughly spray all plant parts. Repeat application every 7 days up to 5 applications per season. Do not apply within 14 days of harvest.  <b>Note:</b> Resistant leafminers will not be controlled by diazinon or similar type insecticides.
Peas (succulent only)	Aphids, Cucumber Beetles, Grasshoppers, Leafhoppers, Mexican Bean Beetles, Spider Mites	1 teaspoon in 1 gal. of water to cover 500 sq. ft. of garden	Thoroughly spray all plant parts. Repeat application every 5 days up to 3 applications per season. Allow at least 7 days between the last application and harvest.
	Cutworms (surface, subterranean)	6 table-spoons per 500 sq. ft. in a minimum of 1 gal. of water	Spray the soil evenly just before planting. Immediately work into soil 2-3 inches for surface cutworms, 3-6 inches for subterranean cutworms.
	Mole Crickets	2 table-spoons per 500 sq. ft. in a minimum of 1 gal. of water	Spray the soil evenly 1-2 days before planting. Immediately work into soil 1-2 inches.

Crop	Pest	Rate	Timing/Special Directions
Peas (succulent only) (Continued)	Wireworms	6 table- spoons per 500 sq. ft. in a minimum of 1 gal. of water	Spray the soil evenly just before planting. Immedi- ately work into soil 4-8 inches.

**Note:** (1) Do not apply this product to dried pea varieties such as split peas or dried black-eyed peas. (2) To protect bees, do not apply foliage treatments if peas or weeds in the treatment area are in bloom.

Peppers	Aphids, Colorado Potato Beetles, Flea Beetles, Leafhoppers	1 teaspoon in 1 gal. of water to cover 500 sq. ft. of garden.	Thoroughly spray all plant parts. Repeat application every 7 days up to 5 appli- cations per season. Do not apply within 5 days of harvest.
Potatoes	Aphids, Flea Beetles, Leafhoppers, Colorado Potato Beetles, Southern Armyworms, Dipterous Leafminers	1 teaspoon in 1 gal. of water to cover 500 sq. ft. of garden	Thoroughly spray all plant parts. Repeat application every 7 days up to 5 appli- cations per season. Do not apply within 35 days of harvest.  <b>Note:</b> Resistant leafminers will not be controlled by diazinon or similar type insecticides.
Radishes	Aphids, Flea Beetles, Leafhoppers, Imported Cabbageworms, Dipterous Leafminers	1 teaspoon in 1 gal. of water to cover 500 sq. ft. of garden	Thoroughly spray all plant parts. Repeat application every 7 days up to 3 appli- cations per season. Do not apply within 14 days of harvest.  <b>Note:</b> Resistant leafminers will not be controlled by diazinon, or similar type insecticides.

Crop	Pest	Rate	Timing/Special Directions
Radishes (Cont'd)	Cutworms (surface, subterranean)	6 table- spoons per 500 sq. ft. in a minimum of 1 gal. of water	Spray the soil evenly just before planting. Immedi- ately work into soil 2-3 inches for sur- face cutworms, 3-6 inches for subterra- nean cutworms.
Rutabagas	Aphids, Flea Beetles, Leafhoppers, Imported Cabbageworms, Dipterous Leafminers	1 teaspoon in 1 gal. of water to cover 500 sq. ft. of garden	Thoroughly spray all plant parts. Repeat application every 7 days up to 5 appli- cations per season. Do not apply within 14 days of harvest.  <b>Note:</b> Resistant leafminers will not be controlled by diazinon or similar type insecticides.
	Cutworms (surface, subterranean)	6 table- spoons per 500 sq. ft. in a minimum of 1 gal. of water	Spray the soil evenly just before planting. Immedi- ately work into soil 2-3 inches for sur- face cutworms, 3-6 inches for subterra- nean cutworms.
Spinach	Aphids, Flea Beetles, Leaf- hoppers, Dipterous Leaf- miners, Spider Mites	1 teaspoon in 1 gal. of water to cover 500 sq. ft. of garden	Thoroughly spray all plant parts. Repeat application every 7 days up to 5 appli- cations per season. Do not apply within 14 days of harvest.  <b>Note:</b> Resistant leafminers will not be controlled by diazinon or similar type insecticides.





Crop	Pest	Rate	Timing/Special Directions
Sweet Corn (Cont'd)	Wireworms	6 table- spoons per 500 sq. ft. in a minimum of 1 gal. of water	Spray the soil evenly just before planting. Immedi- ately work into soil 4-8 inches.

**Note:** To protect bees, do not apply to corn foliage during the pollen shed period.

Tomatoes	Aphids, Colorado Potato Beetles, Fall Armyworms, Flea Beetles, Leafhoppers, Southern Armyworms, Vinegar Flies (Drosophila spp.)	1 teaspoon in 1 gal. of water to cover 500 sq. ft. of garden	Thoroughly spray all plant parts. Repeat application every 7 days up to 5 appli- cations per season. Do not apply within 1 day of harvest.
	Cutworms (surface, sub- terranean)	6 table- spoons per 500 sq. ft. in a minimum of 1 gal. of water	Spray the soil evenly just before planting. Immedi- ately work into soil 2-3 inches for sur- face cutworms, 3-6 inches for subterra- nean cutworms.
	Wireworms	6 table- spoons per 500 sq. ft. in a minimum of 1 gal. of water	Spray the soil evenly just before planting. Immedi- ately work into soil 4-8 inches.

42/45

Crop	Pest	Rate	Timing/Special Directions
Turnips and Turnip Tops	Aphids, Flea Beetles, Leafhoppers, Imported Cabbage-worms, Dipterous Leafminers	1 teaspoon in 1 gal. of water to cover 500 sq. ft. of garden	Thoroughly spray all plant parts. Repeat application every 7 days up to 5 applications per season. Do not apply within 14 days of harvest.  <b>Note:</b> Resistant leafminers will not be controlled by diazinon or similar type insecticides.
	Cutworms (surface, subterranean)	6 table-spoons per 500 sq. ft. in a minimum of 1 gal. of water	Spray the soil evenly just before planting. Immediately work into soil 2-3 inches for surface cutworms, 3-6 inches for subterranean cutworms.

## Storage and Disposal

### Storage

Store in original container in an area inaccessible to children and pets. If product freezes, place container in a warm room (68°F or above) and allow to thaw. Shake well before using.

### Disposal

Do not pour the concentrate, the spray mixture, or the rinse water down the drain or sewer. Do not reuse empty container. Triple rinse the empty container, pour the rinse water into the sprayer then spray the area to be treated. Securely wrap empty container in several layers of newspaper and discard in trash. If disposal of a partially full container is necessary, make sure cap is tightly closed, securely wrap the container in several layers of newspaper and discard in trash.

### Precautionary Statements

#### Hazards to Humans and Domestic Animals

##### CAUTION

Harmful if swallowed, inhaled, or absorbed through skin. Avoid contact with eyes, skin, or clothing. Avoid breathing spray mist. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse. Do not use inside the home. Avoid contamination of feed and foodstuffs. Do not use on household pets or humans. Do not allow children or pets to go onto a treated area until the treated area, such as grass or soil, has dried. Do not contaminate ornamental fish ponds. Food utensils such as spoons and measuring cups must not be used for food purposes after use in measuring pesticides.

#### Statement of Practical Treatment

**If swallowed:** Call a physician or Poison Control Center immediately. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth if person is unconscious or convulsing.

**If in eyes:** Flush eyes with plenty of water. Call a physician if irritation persists.

**If inhaled:** Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

**If on skin:** Wash with plenty of soap and water. Get medical attention.

**Note to Physician:** This product is an organophosphate insecticide. If symptoms of cholinesterase inhibition are present, atropine sulfate by injection is antidotal. 2-PAM is also

44/45

antidotal and may be administered, but only in conjunction with atropine. If ingested, induce emesis or lavage stomach.

**Environmental Hazards**

This product is highly toxic to birds, fish, and other wildlife. Birds, especially waterfowl, feeding or drinking on treated areas may be killed. Because of the migratory habits of certain Atlantic Coast waterfowl, do not apply this product to lawns in Nassau County, New York, between November 1 and May 20. Do not exceed maximum permitted label rates. Application rates above those recommended significantly increase potential hazards to birds and waterfowl. Avoid overlapping of sprays. For lawns, where irrigation (watering) is recommended in the directions, or if waterfowl (ducks or geese) can be expected in the treated area after treatment (except spot treatment), water lawn with at least 1/4 inch of water immediately after spraying this product; however, stop watering before puddling occurs. Keep out of lakes, streams, ponds, tidal marshes and estuaries. Do not apply directly to water. Runoff may be hazardous to aquatic organisms in neighboring areas. Shrimp and crab may be killed at application rates recommended on this label. Do not apply where fish, shrimp, crab, and other aquatic life are important resources. Do not contaminate water by cleaning of equipment or disposal of equipment wash waters.

This pesticide is highly toxic to bees exposed to direct treatment or to residues on blooming crops or weeds. Do not apply this pesticide or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.

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Ciba Crop Protection  
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Greensboro, North Carolina 27419

CGA 1L141

Revised May 17, 1995 -

Corresponds to  
D·z·n LGIC

May 17, 1995 label

added rutabagas,  
blueberries, 15  
ornamentals;  
revised storage  
and disposal

